

**ABSTRACT**

A hemostasis valve includes a single gland with multiple offset longitudinal slits that do not extend through the gland completely. The multiple slits form a complex pathway for the guide dilator/catheter and thus a better seal. The offset slits are joined by a lateral cut in the gland. When a guide wire or dilator/catheter is introduced into the introducer, the gland deforms sufficiently to allow the guide wire or other device to move through the first slit, the lateral cut and the second slit. This complex pathway or slit provides a larger sealing surface thereby creating a better seal. As a result, effective seals may be formed around relatively large, as compared to the inner diameter of an introducer sheath, catheters.